

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN**

NOVOZYMES A/S and NOVOZYMES
NORTH AMERICA, INC.,

Plaintiffs,

v.

DANISCO A/S, GENENCOR
INTERNATIONAL WISCONSIN, INC.,
DANISCO US INC., and DANISCO USA
INC.,

Defendants.

Case No. 10-CV-251

**NOVOZYMES' OBJECTIONS TO
DANISCO'S PROPOSED JURY INSTRUCTIONS**

Pursuant to Fed. R. Civ. P. 51(c), plaintiffs Novozymes A/S and Novozymes North America, Inc. (“Novozymes”) hereby submit the following objections to defendants’ Danisco A/S, Genencor International Wisconsin, Inc., Danisco US Inc., and Danisco USA Inc. (“Danisco”) Proposed Jury Instructions.

GENERAL OBJECTIONS

1. Novozymes objects to Danisco’s Proposed Jury Instructions to the extent they are not adequately supported by the record, do not fairly and accurately summarize the law, do not correctly state the law, or are misleading. *See, e.g., United States v. Curry*, 538 F.3d 718, 731 (7th Cir. 2008).

2. Novozymes objects to each of Danisco’s Proposed Jury Instructions to the extent it does not accurately reflect the state of the law or deviates substantively from the model instruction.

3. Novozymes objects to each of Danisco’s Proposed Jury Instructions to the extent it uses the “239Q” nomenclature. The accused alpha-amylase variant has consistently been referred to as the “GC358 alpha-amylase,” “the GC358 enzyme,” or the “GC358 variant” by both parties, their experts, and the Court. *See* Dkt. No. 399, at 4; Dkt. No. 256 (throughout); Dkt. No. 271, at 2, 5, 30, 39. Danisco’s internal documents refer to the accused products as “GC358” or describe the products as containing the GC358 enzyme. Neither party nor any of its witnesses has used the term “239Q” previously, and introduction of new and inconsistent terminology at this late date will only serve to confuse the jury.

4. Novozymes objects to each of Danisco’s Proposed Jury Instructions to the extent that it refers to “the field of the invention” rather than “the art of the invention.” Although the Seventh Circuit model instructions use “field” rather than “art,” the parties’ experts rely on and

use the terminology found in patent case law, namely, “the art of the invention.”

5. Novozymes objects to each of Danisco’s Proposed Jury Instructions to the extent it requires that with respect to infringement of the ’723 patent by Danisco’s whole broth products, the jury determine any issue other than whether those products satisfy the “isolated variant” requirement. The Court has already found that Danisco’s whole broth products satisfy all other requirements in the asserted claims. Opinion and Order dated July 7, 2011 (Dkt. No. 399), at 4-30, 38-39; Order dated Aug. 24, 2011 (Dkt. No. 453). Furthermore, Danisco has waived any defense relating to whether it makes, uses, sells, offers for sale, or imports the accused products. *See Pandrol USA, LP v. Airboss Ry. Prods., Inc.*, 320 F.3d 1354, 1366–67 (Fed. Cir. 2003).

6. Novozymes objects to each of Danisco’s Proposed Jury Instructions to the extent it indicates that any claims of the ’723 patent other than claims 1–4 and 16 remain at issue for trial, for the purpose of either liability or damages. Novozymes has provided Danisco a Release and Covenant Not To Sue with respect to claims 5, 8–13, and 15 of the ’723 patent.

Accordingly, the Court no longer has jurisdiction over claims 5, 8–13, and 15. *Amana Refrigeration, Inc. v. Quadlux, Inc.*, 172 F.3d 852, 855-56 (Fed. Cir. 1999); *Super Sack Mfg. Corp. v. Chase Packaging Corp.*, 57 F.3d 1054, 1058-60 (Fed. Cir. 1995); *see also Revolution Eyewear, Inc. v. Aspex Eyewear, Inc.*, 556 F.3d 1294 (Fed. Cir. 2009).

SPECIFIC OBJECTIONS

DANISCO'S PROPOSED PRELIMINARY INSTRUCTION 1

From Model Patent Jury Instructions prepared by The National Jury Instruction Project, June 17, 2009, Section 1.1¹

What a Patent Is and How One Is Obtained

This case involves a dispute over a United States patent. Before summarizing the positions of the parties and the legal issues involved in the dispute, I want to explain what a patent is and how one is obtained.

The United States Constitution grants Congress the powers to enact laws “to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.” Using this power, Congress enacted the patent laws.

Patents are granted by the United States Patent and Trademark Office, sometimes called “the PTO”. A valid United States patent gives the patent holder certain rights for up to 20 years from the date the patent application was filed. The patent holder may prevent others from making, using, offering to sell, or selling the patented invention within the United States, or from importing it into the United States without the patent holder’s permission. A violation of the patent holder’s rights is called infringement. The patent holder may try to enforce a patent against persons believed to be infringers by a lawsuit filed in federal court.

The process of obtaining a patent is called patent prosecution. To obtain a patent, one must file an application with the PTO. The PTO is an agency of the federal government and employs trained examiners who review applications for patents. The application includes a section called the “specification,” which must contain a written description of the claimed invention telling what the invention is, how it works, and how to make and use it, in such full, clear, concise, and exact terms so that others skilled in the field will know how to make and use it. The specification concludes with one or more numbered sentences. These are the patent “claims.” If the patent is eventually granted by the PTO, the claims define the boundaries of its protection and give notice to the public of those boundaries. Claims can be independent or dependent. An independent claim is self-contained. A dependent claim refers back to an earlier claim and includes the requirements of the earlier claim.

After the applicant files a patent application, a PTO patent examiner reviews it to determine whether the claims are patentable and whether the specification adequately describes the invention claimed. In examining a patent application,

¹ Available at <http://www.nationaljuryinstructions.org/>.

the patent examiner may review “prior art.” Prior art is defined by law, and, at a later time, I will give you specific instructions on what constitutes prior art. In general, though, prior art includes things that existed before the claimed invention, that were publicly known or used in this country, or that were patented or described in a publication in any country. The examiner considers, among other things, whether each claim defines an invention that is new, useful, and not obvious when compared with the prior art. A patent lists the prior art the examiner considered; this list is called the “cited references.” The cited references include the prior art found by the examiner as well as any prior art submitted to the PTO by the applicant.

After the prior art search and examination of the application, the patent examiner then informs the applicant in writing what the examiner has found and whether any claim is patentable, and thus will be “allowed.” This writing from the patent examiner is called an “office action.” If the examiner rejects any of the claims, the applicant then responds and sometimes changes the claims or submits new claims. This process, which takes place only between the examiner and the patent applicant, may go back and forth for some time until the examiner believes that the application and claims meet the requirements for a patent. The papers generated during this time of communicating back and forth between the patent examiner and the applicant make up what is called the “prosecution history.” All of this material becomes available to the public no later than the date when the PTO grants the patent.

Just because the PTO grants a patent does not necessarily mean that any invention claimed in the patent is, in fact, legally entitled to the protection of a patent. One or more claims may, in fact, not be patentable under the law. A person accused of infringement has the right to defend itself (argue) here in federal court by showing that a claimed invention in the patent is not entitled to patent protection because it does not meet the requirements for a patent. In other words, an accused infringer may defend a suit for patent infringement on the grounds that the patent is invalid.

Novozymes’ Objections:

Novozymes objects to the use of Danisco’s Proposed Preliminary Instruction 1, and instead proposes use of the Federal Judicial Center’s Video, “An Introduction to the Patent System.” The instruction misstates the law concerning the written description and enablement requirements, and even if stated accurately, there is no need to repeat the Court’s instructions to the jury on these points by importing them into a preliminary instruction. The instruction also

includes inaccurate or misleading descriptions of several terms, such as “claims,” “independent claim,” and “prior art,” for the reasons explained in Novozymes’ Objections to Proposed Preliminary Instruction 6.

DANISCO'S PROPOSED PRELIMINARY INSTRUCTION 2

From Model Patent Jury Instructions prepared by The National Jury Instruction Project, June 17, 2009, Section 1.2

The Patent Involved in this Case

Let's take a moment to look at one of the patents in this case. The cover page of the patent identifies the date the patent was granted and patent number along the top, as well as the inventor's name, the filing date, and a list of the references considered in the PTO. The specification of the patent begins with an abstract, also found on the cover page. The abstract is a brief statement about the subject matter of the invention. Next come the drawings. The drawings illustrate various aspects or features of the invention. The written description of the invention appears next and is organized into two columns on each page. The specification ends with numbered paragraphs. These are the patent claims.

Novozymes' Objections:

Novozymes objects to the use of Danisco's Proposed Preliminary Instruction 2, and instead proposes use of the Federal Judicial Center's Video, "An Introduction to the Patent System." Novozymes further objects to this Instruction because it incorrectly suggests by its reference to "one of the patents in this case" that more than one patent is at issue.

DANISCO'S PROPOSED PRELIMINARY INSTRUCTION 3

From Model Patent Jury Instructions prepared by The National Jury Instruction Project, June 17, 2009, Section 1.3

The Positions of the Parties

To help you follow the evidence, I will now give you a summary of the positions of the parties. The parties in this case are Novozymes A/S and Novozymes North America, Inc., who will be abbreviated as “Novozymes,” and Danisco A/S, Genencor International Wisconsin, Inc., Danisco US Inc., and Danisco USA Inc., who will be abbreviated as “Danisco.” (The case involves a patent obtained by [the inventor], and transferred by [the inventor] to [the patent holder].) The patent involved in this case is United States Patent No. 7,713, 723, which lists Thomas Thisted, Soren Kjaerulff, Carsten Andersen, and Claus Crone Fuglsang as the inventors. For convenience, the parties and I will often refer to this patent as the '723 patent. 723 are the last three digits of the patent number. The '723 patent claims variants of a protein used in the production of fuel ethanol. That protein is called an alpha-amylase. Among other requirements, the alpha-amylase variants claimed in the '723 patent must be “isolated variants” and those isolated variants must have a substitution at position 239 and increased thermostability relative to the parent at 90°C, 5 ppm calcium, and pH 4.5.

Novozymes alleges that Danisco has infringed claims 1-5, 8-13 and 15-16 of the '723 patent by making and selling products containing a particular alpha-amylase variant called “239Q” that includes all of the requirements of those claims. Danisco’s 239Q products come in two versions: “clarified” and “whole broth.” Danisco denies that the “whole broth” versions of its 239Q products infringe, and contends that all of the claims of the '723 patent are invalid. ([The alleged infringer] alleges that the asserted claims are not infringed and are also invalid.)

Danisco contends that the '723 patent is invalid because Danisco was the first to invent the 239Q alpha-amylase variant. Danisco contends that Novozymes derived the invention claimed in the '723 patent from Danisco after reading about the 239Q alpha-amylase variant in Danisco’s own patent, United States Patent No. 7,541,026. Danisco also contends that the '723 patent is invalid because there is no written description for the claims of the '723 patent in the applications Novozymes filed prior to Danisco’s '026 patent and that Novozymes’s disclosure does not enable one to practice the full scope of the inventions claimed in the '723 patent. Novozymes denies these allegations.

To fulfill your duties as jurors, you must decide whether claims 1-5, 8-13 and 15-16 of the '723 patent have been infringed and whether those claims are invalid.

(If you decide that any claim of the '723 patent has been infringed and is not invalid, you will then need to decide any money damages to be awarded to Novozymes to compensate for that infringement. You will also need to decide whether the infringement was willful. If you decide that any infringement was

willful, that decision should not affect any damage award you give. I will take willfulness into account later in the proceedings.)²

It is my job as judge to determine the meaning of any claim language that needs interpretation. You must accept the meanings I give you and use them when you decide whether any claim of the patent has been infringed and whether any claim is invalid.

Novozymes' Objections:

Novozymes objects to Danisco's Proposed Preliminary Instruction 3 because it suggests that the jury must make findings with respect to infringement other than a finding regarding whether Danisco's whole broth products satisfy the "isolated variant" requirement. The Court has already found that Danisco's whole broth products satisfy all other requirements in the asserted claims. Opinion and Order dated July 7, 2011 (Dkt. No. 399), at 4-30, 38-39; Order dated Aug. 24, 2011 (Dkt. No. 453). Furthermore, Danisco has waived any defense relating to whether it makes, uses, sells, offers for sale, or imports the accused products. *See Pandrol*, 320 F.3d at 1366-67.

Novozymes further objects to the Instruction to the extent it suggests that infringement of Danisco's clarified products remains an issue for trial, and to the extent it suggests that the elimination of this issue for trial was the result of an admission of infringement by Danisco rather than the Court's ruling on summary judgment.

Novozymes further objects to this Instruction because it uses the "239Q" nomenclature, for the reasons stated in the General Objections, paragraph 3. The accused and infringing products should be referred to as the "GC358 alpha-amylase products" consistent with how they have been referred to throughout this proceeding.

Novozymes objects to this Instruction to the extent it asserts that any claims of the '723

² References to damages and willfulness removed from preliminary instructions given prior to damages phase of trial.

patent other than claims 1–4 and 16 remain at issue for trial, for the purpose of either liability or damages. Novozymes has provided Danisco a Release and Covenant Not To Sue with respect to claims 5, 8–13, and 15 of the '723 patent. Accordingly, the Court no longer has jurisdiction over claims 5, 8–13, and 15. *Amana Refrigeration, Inc. v. Quadlux, Inc.*, 172 F.3d 852, 855-56 (Fed. Cir. 1999); *Super Sack Mfg. Corp. v. Chase Packaging Corp.*, 57 F.3d 1054, 1058-60 (Fed. Cir. 1995); *see also Revolution Eyewear, Inc. v. Aspex Eyewear, Inc.*, 556 F.3d 1294 (Fed. Cir. 2009).

Novozymes further objects to this Instruction to the extent the Court grants Novozymes' Motions *in Limine* Nos. 1 and 2 to exclude derivation as an issue for trial and to exclude evidence relating to Danisco's '026 patent, in which case any references to derivation and to the '026 patent should be eliminated from the Instruction.

Novozymes objects to the unnecessarily long and one-sided description of the parties' respective positions, particularly the text inserted in the second half of the second paragraph of the Instruction which unfairly slants the description of the case in Danisco's favor.

DANISCO’S PROPOSED PRELIMINARY INSTRUCTION 4

Adapted from Fed. Civ. Jury Instructions of the 7th Circuit § 1.27

Burden of Proof—Preponderance of the Evidence

When I say a particular party must prove something by “a preponderance of the evidence,” (or when I use the expression “if you find,” or “if you decide,”) this is what I mean: When you have considered all the evidence in the case, you must be persuaded that it is more probably true than not true.

Novozymes’ Objections:

Novozymes objects to Danisco’s Proposed Preliminary Instruction 4 on the basis that instructions regarding the parties’ burden of proof are more properly given at the close of evidence, in accordance with Judge Crabb’s standard procedures. *See* Preliminary Pretrial Conference Order (Dkt. No. 58), at 26-27. Novozymes further objects to this Instruction to the extent it deviates from Judge Crabb’s Standard Civil Jury Instructions.

DANISCO’S PROPOSED PRELIMINARY INSTRUCTION 5

Adapted from Fed. Civ. Jury Instructions of the 7th Circuit § 1.28

Burden of Proof—Clear and Convincing Evidence

When I say that a particular party must prove something by “clear and convincing evidence,” this is what I mean: When you have considered all of the evidence, you are persuaded (convinced) that it is highly probable that it is true.

Novozymes’ Objections:

Novozymes objects to Danisco’s Proposed Preliminary Instruction 5 on the basis that instructions regarding the parties’ burden of proof are more properly given at the close of evidence, in accordance with Judge Crabb’s standard procedures. *See* Dkt. No. 58, Preliminary Pretrial Conference Order, at 26-27.

DANISCO'S PROPOSED PRELIMINARY INSTRUCTION 6

From Model Patent Jury Instructions prepared by The National Jury Instruction Project, June 17, 2009, Section 1.6

Glossary of Patent Terms

To assist you in your deliberations, I have attached a Glossary of Patent (and Technical) Terms that identifies terms used in patent matters and gives you a definition of those terms.

GLOSSARY OF PATENT TERMS

Application – The initial papers filed by the applicant with the United States Patent and Trademark Office (also called the Patent Office or PTO). An application is not a patent, but may become one if, and when, the PTO issues it.

Claims – The numbered sentences appearing at the end of the patent that define the invention. The words of the claims define the scope of the patent holder's exclusive rights during the life of the patent. Claims can be independent or dependent. An independent claim is self-contained. A dependent claim refers back to an earlier claim and includes the requirements of the earlier claim.

File wrapper – Another term for the “prosecution history” defined later.

License – Permission to use or make the patented invention, or perform any of the other exclusive rights granted by the patent, which may be granted by a patent holder (or a prior licensee) in exchange for a fee called a “royalty” or other types of payment.

Office action – Communication from the patent examiner regarding the patent application.

Patent examiners – Personnel employed by the PTO who review (examine) patent applications, each in a specific technical area, to determine whether the claims of a patent application are patentable and whether the specification adequately describes and enables the claimed invention.

Prior art – Prior art is not art as one might generally understand the word art. Rather, prior art is a technical term relating to patents. In general, it includes things that existed before the claimed invention and might typically be a patent or a printed publication. (I will give you a more specific definition of prior art later.)

Prosecution history – The written record of proceedings between the applicant and the PTO, including the original patent application and later communications between the PTO and applicant.

Specification – The information that appears in the patent and concludes with one

or more claims. The specification includes the written text and the drawings (if any). In the specification, the inventor should provide a description telling what the invention is, how it works, and how to make and use it so as to enable others skilled in the art to do so, and what the inventor believed at the time of filing to be the best way of making the invention.

Ordinary skill in the art – The level of experience, education, and/or training that those individuals who worked in the area of the invention ordinarily possessed at the time of the effective filing date of the patent application.

Novozymes' Objections:

Novozymes objects to the use of Danisco's Proposed Preliminary Instruction 6 as unnecessary, and instead proposes use of the Federal Judicial Center's Video, "An Introduction to the Patent System."

Novozymes further objects to the Instruction because it includes inaccurate or misleading descriptions of most of the listed terms, including:

- The definition of "application" is imprecise. The "initial papers" filed with the Patent Office may include an application but the "initial papers" may also include other materials, such as a declaration. Danisco's inclusion of this definition appears calculated to emphasize unnecessarily that an application for a patent is not an issued patent, a matter on which the jury will have already received instruction.
- The definition of "claims" is imprecise. An application, as well as a patent, may include claims. Claims do not only appear at the end of a patent. The definition of "claims" is also unhelpful because it describes an "independent claim" ambiguously as "self-contained."
- The definition of "license" is inaccurate, as a license may be provided in exchange for consideration other than a "fee" or a "royalty," including consideration in the form of a cross-license. In addition, there is no need to instruct the jury on the meaning of the term "license" during the first phase of the trial.
- The definition of "office action" is imprecise. Patent examiners may issue communications other than office actions, such as notices of allowance.
- The definition of "prior art" is inaccurate and misleading. Prior art is a complicated term in patent law and not amenable to a two-sentence definition. What is or is not prior art depends on fact-specific information not detailed in this definition. The definition Danisco proposes is particularly unhelpful because the Court will not otherwise have occasion to instruct the jury further on "prior art."

- The definition of “file wrapper” is inaccurate. The file wrapper and the prosecution history are not the same thing. The file wrapper contains a number of documents, such as the examiner’s search strategy, that are not part of the written record between the applicant and the examiner.
- The definition of “specification” is inaccurate. It misstates the law concerning the written description and enablement requirements. Even if stated accurately, there is no need to repeat the Court’s instructions to the jury on these points by importing them into a “glossary” of terms.

DANISCO'S PROPOSED FINAL INSTRUCTION L1

From Model Patent Jury Instructions prepared by The National Jury Instruction Project, June 17, 2009, Section 2.1

Summary of Contentions

Novozymes contends that the clarified and whole broth versions of Danisco's 239Q products (makes, uses, offers to sell, sells or imports a [product] [method] that) infringe claims 1-5, 8-13 and 15-16 of the '723 patent. Danisco denies that the whole broth versions of its 239Q products infringe (it is infringing) the claims of the '723 patent. Danisco does not dispute that the clarified versions of its 239Q products infringe (it infringes) 1-5, 8-13 and 15-16 claims of the '723 patent, if those claims are valid.³ Danisco, however, contends that claims 1-5, 8-13 and 15-16 are invalid and therefore none of its 239Q products infringe a valid claim.

Danisco contends that the '723 patent is invalid because Danisco was the first to invent the 239Q alpha-amylase variant. Danisco contends that Novozymes derived the invention claimed in the '723 patent from Danisco after reading about the 239Q alpha-amylase variant in Danisco's '026 patent. Danisco also contends that the '723 patent is invalid because there is no written description for the claims of the '723 patent in the applications Novozymes filed prior to Danisco's '026 patent and that Novozymes's written description does not enable one to practice the full scope of the inventions claimed in the '723 patent. Novozymes denies these allegations.

Invalidity is a defense to infringement. Therefore, even though the PTO examiner has allowed the claims of the '723 patent, you, the jury, must decide whether the claims of the '723 patent are invalid.

Your job is to decide whether the asserted claims of the '723 patent have been infringed by the whole broth versions of Danisco's 239Q products and whether any of the asserted claims of the '723 patent are invalid.

(If you decide that any claim of the patent has been infringed and is not invalid, you will then need to decide any money damages to be awarded to Novozymes as compensation for the infringement. You will also need to decide whether the infringement was willful. If you decide that any infringement was willful, that decision should not affect any damage award you make. I will take willfulness into account later.)⁴

³ See Committee Notes to National Jury Instruction Project, Model Patent Jury Instructions Section 2.1 (recommending that the Court give this instruction where "infringement is not at issue, but validity is").

⁴ References to damages and willfulness removed from preliminary instructions given prior to damages phase of trial.

Novozymes' Objections:

Novozymes objects to Danisco's Proposed Final Instruction L1 because it fails to inform the jury that the Court found Danisco's clarified GC358 alpha-amylase products infringe the '723 patent. Instead, Danisco proposes that the jury be instructed that it "does not dispute" that these products infringe, which is misleading.

Novozymes further objects to this Instruction because it uses the "239Q" nomenclature, for the reasons stated in the General Objections, paragraph 3. The accused and infringing products should be referred to as the "GC358 alpha-amylase products" consistent with how they have been referred to throughout this proceeding.

Novozymes objects to this Instruction to the extent it asserts that any claims of the '723 patent other than claims 1–4 and 16 remain at issue for trial, for the purpose of either liability or damages. Novozymes has provided Danisco a Release and Covenant Not To Sue with respect to claims 5, 8–13, and 15 of the '723 patent. Accordingly, the Court no longer has jurisdiction over claims 5, 8–13, and 15. *Amana Refrigeration, Inc. v. Quadlux, Inc.*, 172 F.3d 852, 855-56 (Fed. Cir. 1999); *Super Sack Mfg. Corp. v. Chase Packaging Corp.*, 57 F.3d 1054, 1058-60 (Fed. Cir. 1995); *see also Revolution Eyewear, Inc. v. Aspex Eyewear, Inc.*, 556 F.3d 1294 (Fed. Cir. 2009).

Novozymes objects to this Instruction because Danisco has not asserted a defense of "first to invent," and because Danisco's characterization of its defenses is misleading and argumentative.

Novozymes also objects to the phrase "full scope of the invention." The proper contention is as follows: "the specification of the '723 patent does not enable one to practice the inventions claimed in the '723 patent."

Novozymes specifically objects to the following paragraph: “Invalidity is a defense to infringement. Therefore, even though the PTO examiner has allowed the claims of the ’723 patent, you, the jury, must decide whether the claims of the ’723 patent are invalid.” This paragraph is overly argumentative and diminishes the importance of the decision of the U.S. Patent and Trademark Office granting the ’723 patent. This paragraph is also unnecessary in light of the paragraph immediately following (“Your job is to decide . . .”), which suffices to explain to the jury the issues that they will need to decide. Danisco’s proposed instruction, if adopted, risks suggesting to the jury that the ’723 patent is not entitled to a presumption of validity. This would be error in view of the U.S. Supreme Court’s decision. *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S.Ct. 2238, 2245–52 (2011).

Novozymes further objects to this Instruction to the extent the Court grants Novozymes’ Motions *in Limine* Nos. 1 and 2 to exclude derivation as an issue for trial and to exclude evidence relating to Danisco’s ’026 patent, in which case any references to derivation and to the ’026 patent should be eliminated from the Instruction.

DANISCO’S PROPOSED FINAL INSTRUCTION L2

Adapted from Fed. Civ. Jury Instructions of the 7th Circuit § 11.2.2

Person of Ordinary Skill

Some issues in patent cases are determined by reference to a “person of ordinary skill in the field of the invention,” a term that I will use later in these instructions. In this case, the field of the invention is protein engineering.

It is up to you to decide the level of ordinary skill. In making this decision, you should consider all the evidence, including:

- the levels of education and experience of persons working in the field;
- the types of problems encountered in the field; and
- the sophistication of the technology in the field.

Novozymes’ Objections:

Novozymes objects to Danisco’s Proposed Final Instruction L2 because it identifies “protein engineering” as the art of the invention. The Instruction ignores the fact that the ’723 patent concerns not protein engineering generally, but rather protein engineering of alpha-amylase enzymes specifically. Protein engineering approaches may well depend on the protein at issue, and as of 2000, alpha-amylases were a well-studied class of enzymes with much known about their function, sequence, and structures. Dkt. No. 558, Arnold Rebuttal Report ¶ 109. The relevant field is not protein engineering, but alpha-amylase enzymes. *Id.*

Novozymes further objects to this Instruction to the extent that it refers to “the field of the invention” rather than “the art of the invention.” Although the Seventh Circuit model instructions use “field” rather than “art,” the parties’ experts rely on and use the terminology found in patent case law, namely, “the art of the invention.”

DANISCO'S PROPOSED FINAL INSTRUCTION L3

Adapted from Fed. Civ. Jury Instructions of the 7th Circuit § 11.2.5

Infringement: Interpretation of the Patent Claims

The owner of a patent has the right to prevent others from making and selling the invention covered by the patent. A product infringes a patent if that product is covered by at least one claim of the patent. I will tell you the meaning of any disputed terminology in the patent claims. You must use the meanings I give you when you decide whether the patent is infringed and whether it is invalid.

Novozymes' Objections:

Novozymes objects to Danisco's Proposed Final Instruction L3 as unnecessary and redundant.

DANISCO’S PROPOSED FINAL INSTRUCTION L3(a)

Adapted from Fed. Civ. Jury Instructions of the 7th Circuit § 11.2.6

Interpretation of the Patent Claims⁵

(I [have provided you; will provide you] with a copy of Novozymes’ patent.) I have previously defined certain phrases in the claims of the ’723 patent. You must use these definitions in making your decision. The phrases I have defined are as follows:

- “Isolated variant” means an alpha-amylase variant that is separated from other proteins and cellular material. A sufficient quantity of these other materials must be separated from the alpha-amylase variant as is necessary to make it easier to identify and recover the variant.⁶
- “Increased thermostability” means that the alpha-amylase variant consistently has greater residual alpha-amylase activity than the parent alpha-amylase at any time point at which at least one of the variant or parent alpha-amylase has residual activity.⁷

Novozyymes’ Objections:

Novozyymes objects to Danisco’s Proposed Final Instruction L3(a) because it provides an incomplete and inaccurate definition for “isolated variant.” First, the Instruction improperly requires separation from both proteins and cellular material. As a protein is a type of cellular material, this definition makes no sense. Moreover, it is inconsistent with the Court’s observation that “[i]t is undisputed that most of the accused products go through a process called ‘recovery,’ in which some cell fragments are separated from the alpha-amylase variant.” Dkt. No. 399, Opinion and Order dated July 7, 2011, at 22. Nothing else in the Court’s Order suggests that isolation requires separation not only from proteins, but also from other cellular material. *See generally id.* at 16–23. Second, the Instruction omits the Court’s findings that

⁵ Danisco cites these constructions as those adopted by the Court in its July 7, 2011 order and reserves the right to appellate review of the same. *See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1359 (Fed. Cir. 2008).

⁶ Opinion and Order dated July 7, 2011, at 22-23 (discussing construction of “isolated”).

⁷ Opinion and Order dated July 7, 2011, at 11-12.

isolation does not require complete separation from proteins or cellular material, and that the variant need not constitute a majority of the material in the accused product nor represent any particular percentage of the material in the accused product in order to be isolated. Opinion and Order dated July 7, 2011 (Dkt. No. 399), at 22-23. This information should be included in the instructions provided to the jury so that the jury will have a complete understanding of the construction. Third, Novozymes also specifically objects to the following statement within the definition for “isolated variant”: “A sufficient quantity of these other materials must be separated from the alpha-amylase variant as is necessary to make it easier to identify and recover the variant.” The degree to which a protein is purified must be related to its function. *Id.* at 18. The Court found that “in the absence of evidence that would require a specific ‘percentage’ of separation, it is reasonable to construe the claims as requiring no more separation than is necessary to perform that function.” *Id.* at 23. There is no dispute that the function here is alpha-amylase activity, i.e., degradation of starch. Raines Dep. (Dkt. No. 498), at 29:23-30:2; *id.* at 28:13-16.

Novozymes further objects to this Instruction because it fails to provide a definition for the term “*Bacillus stearothermophilus* alpha-amylase.” Novozymes has set forth the appropriate instruction in Novozymes’ Proposed Instruction No. 4.2.

DANISCO'S PROPOSED FINAL INSTRUCTION L4

From Model Patent Jury Instructions prepared by The National Jury Instruction Project, June 17, 2009, Section 3.2

Infringement

You must decide whether Danisco has made, used, sold, or offered for sale within the United States, or imported into the United States, a product covered by claims 1-5, 8-13 and 15-16 of the '723 patent. You must compare each claim to the whole broth versions of Danisco's 239Q products, namely Spezyme Alpha, Clearflow WB and GC133, to determine whether every requirement of the claim is included in the accused product.

To prove literal infringement, Novozymes must prove that it is more probable than not that the whole broth versions of Danisco's 239Q products include every requirement in Novozymes's patent claim. If the whole broth versions of Danisco's 239Q products omit any requirement recited in Novozymes's patent claim, Danisco does not infringe that claim.

For literal infringement, Novozymes is not required to prove that Danisco intended to infringe or knew of the patent.

Novozymes' Objections:

Novozymes objects to Danisco's Proposed Final Instruction L4 because it suggests incorrectly that the jury must determine whether "every requirement of the claim is included in the accused product." The only issue the jury is required to decide is whether Danisco's whole broth GC358 alpha-amylase products satisfy the "isolated variant" requirement. The Court has already found that Danisco's whole broth products satisfy all other requirements in the asserted claims. Dkt No. 399, Opinion and Order dated July 7, 2011, at 4-30, 38-39; Dkt. No. 453, Order dated Aug. 24, 2011. Danisco has waived any defense relating to whether it makes, uses, sells, offers for sale, or imports the accused products. *See Pandrol*, 320 F.3d at 1366-67.

Novozymes further objects to this Instruction because it uses the "239Q" nomenclature, for the reasons stated in the General Objections, paragraph 3. The accused and infringing products should be referred to as the "GC358 alpha-amylase products" consistent with how they

have been referred to throughout this proceeding.

Novozymes further objects to use of the term “literal infringement” in this Instruction as unnecessary and confusing to the jury. As the jury will not need to distinguish between literal infringement and infringement under the doctrine of equivalents, it is not necessary for any instruction to refer to “literal infringement,” as opposed to merely “infringement.”

Novozymes objects to this Instruction to the extent it asserts that any claims of the ’723 patent other than claims 1–4 and 16 remain at issue for trial, for the purpose of either liability or damages. Novozymes has provided Danisco a Release and Covenant Not To Sue with respect to claims 5, 8-13, and 15 of the ’723 patent. Accordingly, the Court no longer has jurisdiction over claims 5, 8-13, and 15. *Amana Refrigeration, Inc. v. Quadlux, Inc.*, 172 F.3d 852, 855-56 (Fed. Cir. 1999); *Super Sack Mfg. Corp. v. Chase Packaging Corp.*, 57 F.3d 1054, 1058-60 (Fed. Cir. 1995); *see also Revolution Eyewear, Inc. v. Aspex Eyewear, Inc.*, 556 F.3d 1294 (Fed. Cir. 2009).

DANISCO'S PROPOSED FINAL INSTRUCTION L5

From Model Patent Jury Instructions prepared by The National Jury Instruction Project, June 17, 2009, Section 3.7

Infringement of Dependent Claims

So far, my instructions on infringement have applied to what are known as independent claims. The patent also contains dependent claims. Each dependent claim refers to an independent claim. A dependent claim includes each of the requirements of the independent claim to which it refers and one or more additional requirements.

In order to find infringement of dependent claims 2-5 and 8 of the '723 patent, you must first determine whether independent claim 1 of the patent has been infringed. In order to find infringement of dependent claims 10-13 and 15 of the '723 patent, you must first determine whether independent claim 9 of the patent has been infringed. If you decide that the independent claims have not been infringed, then the dependent claims cannot have been infringed.

If you decide that the independent claims have (has) been infringed, you must then separately determine whether each additional requirement of the dependent claims has also been included in the accused product. If each additional requirement has been included, then the dependent claims have (has) been infringed.

Novozymes must prove that it is more probable than not that a patent claim has been infringed.

Novozymes' Objections:

Novozymes objects to Danisco's Proposed Final Instruction L5 because it suggests incorrectly that the jury must determine whether "every requirement of the claim is included in the accused product." The only issue the jury is required to decide is whether Danisco's whole broth GC358 alpha-amylase products satisfy the "isolated variant" requirement. The Court has already found that Danisco's whole broth products satisfy all other requirements in the asserted claims. Dkt. No. 399, Opinion and Order dated July 7, 2011, at 4-30, 38-39; Dkt. No. 453, Order dated Aug. 24, 2011. Danisco has waived any defense relating to whether it makes, uses, sells, offers for sale, or imports the accused products. *See Pandrol*, 320 F.3d at 1366-67.

Novozymes further objects to this Instruction because it uses the “239Q” nomenclature, for the reasons stated in the General Objections, paragraph 3. The accused and infringing products should be referred to as the “GC358 alpha-amylase products” consistent with how they have been referred to throughout this proceeding.

Novozymes further objects to use of the term “literal infringement” in this Instruction as unnecessary and confusing to the jury. As the jury will not need to distinguish between literal infringement and infringement under the doctrine of equivalents, it is not necessary for any instruction to refer to “literal infringement,” as opposed to merely “infringement.”

Novozymes objects to this Instruction to the extent it asserts that any claims of the ’723 patent other than claims 1–4 and 16 remain at issue for trial, for the purpose of either liability or damages. Novozymes has provided Danisco a Release and Covenant Not To Sue with respect to claims 5, 8–13, and 15 of the ’723 patent. Accordingly, the Court no longer has jurisdiction over claims 5, 8–13, and 15. *Amana Refrigeration, Inc. v. Quadlux, Inc.*, 172 F.3d 852, 855-56 (Fed. Cir. 1999); *Super Sack Mfg. Corp. v. Chase Packaging Corp.*, 57 F.3d 1054, 1058-60 (Fed. Cir. 1995); *see also Revolution Eyewear, Inc. v. Aspex Eyewear, Inc.*, 556 F.3d 1294 (Fed. Cir. 2009).

DANISCO'S PROPOSED FINAL INSTRUCTION L6

From Model Patent Jury Instructions prepared by The National Jury Instruction Project, June 17, 2009, Section 5.1

Invalidity—Generally

Patent invalidity is a defense to patent infringement. Even though the PTO examiner has allowed the claims of a patent, you have the ultimate responsibility for deciding whether the claims of the patent are valid.

I will now instruct you on the invalidity issues you should consider. As you consider these issues, remember that Danisco bears the burden of proving that it is highly probable that the claims are invalid.

Novozymes' Objections:

Novozymes objects to Danisco's Proposed Final Instruction L6 because it deviates from the Federal Civil Jury Instructions of the Seventh Circuit by omitting the presumption of validity to which an issued patent is entitled. 35 U.S.C. § 282. Novozymes further objects to this Instruction to the extent that it deviates from the Federal Civil Jury Instructions of the Seventh Circuit by omitting any mention that Danisco must prove invalidity by clear and convincing evidence. *Microsoft Corp. v. i4i Ltd.*, 131 S.Ct. 2238 (2011). Novozymes also objects to the Instruction as diminishing the importance of the decision of the U.S. Patent and Trademark Office granting the '723 patent.

DANISCO'S PROPOSED FINAL INSTRUCTION L7

Adapted From Model Patent Jury Instructions prepared by The National Jury Instruction Project, June 17, 2009, Section 5.6

Derivation—Made or Invented by Someone Else⁸

Danisco contends that the asserted claims of the '723 patent are invalid as anticipated because the invention was first made or invented by Danisco (someone else). If someone other than the named inventors on the '723 patent made or invented the invention described in one or more such patent claims involved in this lawsuit before Novozymes's named inventors did so, then each such claim was "anticipated" by the other invention, and each such claim is invalid. Danisco must prove that it is highly probable that each such claim was anticipated by the other invention.

(Here is a list of the ways that)⁹ Danisco can show that a patent claim was not new because the invention described in such claim was first made or invented by someone else (:if the inventors named on Novozymes's '723 patent did not invent the claimed invention but instead learned of it from Danisco (someone else).

If the invention of a patent claim was first made or invented by someone else as explained above, you must find the patent claim invalid.

Novozymes' Objections:

Novozymes objects to Danisco's Proposed Final Instruction L7 because it does not accurately state the law regarding what is required to prove a violation of 35 U.S.C. § 102(f).

The Instruction improperly conflates anticipation and inventorship, while ignoring the applicable

⁸ See 35 U.S.C. § 102(f) ("A person shall be entitled to a patent unless— . . . (f) he did not himself invent the subject matter sought to be patented.").

⁹ The other "ways" of establishing invention by others provided by the model jury instruction, but not included here, are:

- [if the claimed invention was already made by someone else in the United States before [insert date of invention unless in issue], if that other person had not abandoned the invention or kept it secret;]
- [if [the patent holder] and [the alleged infringer] dispute who is a first inventor, the person who first conceived of the claimed invention and first reduced it to practice is the first inventor; if one person conceived of the claimed invention first, but reduced it to practice second, that person is the first inventor only if that person (a) began to reduce the claimed invention to practice before the other party conceived of it and (b) continued to work with reasonable diligence to reduce it to practice from a time just before the other party's conception.]

legal standard. *See Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 1576-78 (Fed. Cir. 1997) (“To show derivation, the party asserting invalidity must prove both prior conception of the invention by another and communication of that conception to the patentee); *Price v. Symsek*, 988 F.2d 1187, 1190 (Fed. Cir. 1993); *Hegewick v. Akers*, 497 F.2d 905, 908 (C.C.P.A. 1974) (“Derivation is shown by a prior, complete conception of the claimed subject matter and communication of the complete conception to the party charged with derivation.”). In fact, Danisco developed this “derivation” instruction by misappropriating a model instruction for anticipation. *See* Model Patent Jury Instructions prepared by The National Jury Instruction Project, Instruction No. 5.6. Danisco’s failure to so indicate and further failure to modify the model instruction to reflect the legal standard governing derivation is, at a minimum, misleading. Anticipation and derivation are two distinct issues. A validity challenge on the basis of anticipation merely asserts that a claimed invention is not new because it was known or used by others before being invented by the patentee. *Hoover Group v. Custom Metalcraft*, 66 F.3d 299, 302 (Fed. Cir. 1995). A derivation challenge pursuant to section 102(f), by contrast, contests inventorship itself by alleging that the patentee did not invent anything at all, but instead copied the patented subject matter from the rightful inventor. *Gambro Lundia*, 110 F.3d at 1576-78. Derivation thus requires proof of a “prior conception of the invention by another” and of “communication of that conception to the patentee.” *Id.* at 1576; *Price*, 988 F.2d at 1190. Novozymes has set forth the appropriate instruction in Novozymes’ Proposed Instruction No. 4.10.

Novozyymes further objects to this Instruction for the reasons stated in Novozymes’ Motion *in Limine* No. 1 to exclude derivation as an issue for trial. Should the Court grant Novozymes’ motion, this instruction should be eliminated in its entirety. In any event, the jury

should not be instructed on the law applicable to section 102(f) before it is instructed on the law applicable to the written description requirement, as Danisco's section 102(f) theory depends on the jury's decision on whether the claims satisfy the written description requirement.

DANISCO'S PROPOSED FINAL INSTRUCTION L8

Adapted From American Intellectual Property Law Association's (AIPLA) Model Patent Jury Instructions, 2008, Section 9.¹⁰

Written Description

To satisfy the written description requirement, the patent must describe each and every limitation of a patent claim, in sufficient detail, although the exact words found in the claim need not be used. The level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.¹¹

The written description requirement is satisfied if a person of ordinary skill in the field reading the patent application as originally filed would recognize that the patent application described the invention as finally claimed in the patent. It is unnecessary to spell out every detail of the invention in the specification; only enough must be included to convince a person of skill in the art that the inventor possessed the full scope of the invention as of the alleged priority date, here November 10, 2000¹². However, a mere wish or plan for obtaining the claimed invention is not adequate written description.¹³

Danisco contends that the applications Novozymes filed back in 2000 do not describe the invention claimed in the '723 patent and therefore the asserted claims of the '723 patent are invalid for failure to satisfy the written description requirement. Danisco bears the burden of establishing lack of written description by clear and convincing evidence.

If you find that Danisco has proved that it is highly probable that the '723 patent does not contain a written description of the invention covered by any of these claims, then you must find that the claim is invalid.

Novozymes' Objections:

Novozymes objects to Danisco's Proposed Final Instruction L8 because it omits any instruction that the specification need not contain examples of the invention, nor that the

¹⁰ Available at http://www.aipla.org/learningcenter/library/books/other-pubs/Documents/2008_03_27_AIPLA_Model_Jury_Instructions.pdf.

¹¹ Quoted from *Billups-Rothenberg, Inc. v. Assoc. Regional and Univ. Pathologists, Inc.*, 642 F.3d 1031, 1036 (Fed. Cir. 2011) (quoting *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc)).

¹² See Novozymes's Fourth Supplemental and Amended Response to Defendants' First Set of Interrogatories and Requests for Admission at 9.

¹³ Quoted from *Boston Scientific Corp. v. Johnson & Johnson*, 2011 WL 2184283, at *6 (Fed. Cir. June 7, 2011) (citing *Centocor Ortho Biotech, Inc. v. Abbott Labs*, 636 F.3d 1341, 1348 (Fed. Cir. 2011)).

inventors have actually made an example of the invention in order to satisfy the written description requirement. *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351-1352 (Fed. Cir. 2010) (en banc) (“We have made clear that the written description requirement does not demand either examples or an actual reduction to practice; a constructive reduction to practice that in a definite way identifies the claimed invention can satisfy the written description requirement.”); *Falkner v. Inglis*, 448 F.3d 1357, 1366-67 (Fed. Cir. 2006); *Capon v. Eshhar*, 418 F.3d 1349, 1356–58 (Fed. Cir. 2005). This point is a critical issue in dispute and it is important that the jury be carefully and accurately instructed on the applicable law. Novozymes has set forth the appropriate instruction in Novozymes’ Proposed Instruction No. 4.7.

Novozyymes further objects to Danisco’s inclusion of a restatement of Danisco’s contention regarding lack of written description at the end of the instruction. The purpose of the instruction is to explain the law of written description, not to again summarize Danisco’s contention on this issue.

Novozyymes further objects to the phrase “patent applications filed back in 2000” as an improper, inaccurate, and argumentative characterization of the standard the jury will be instructed to apply. The jury will be instructed to examine the disclosure in the *specification* from the perspective of a person of ordinary skill in the art, not “patent applications filed back in 2000.”

Novozyymes further objects to this Instruction to the extent that it refers to “the field of the invention” rather than “the art of the invention.” Although the Seventh Circuit model instructions use “field” rather than “art,” the parties’ experts rely on and use the terminology found in patent case law, namely, “the art of the invention.”

DANISCO'S PROPOSED FINAL INSTRUCTION L9

Adapted from Fed. Civ. Jury Instructions of the 7th Circuit § 11.3.3.2

Enablement

The law requires that the “specification” section of the patent contain enough information to enable a person of ordinary skill in the field of the invention to make and use the full scope of the claimed¹⁴ invention, without an unreasonable amount of experimentation. A patent does not have to state information that persons of ordinary skill in the field would be likely to know or could obtain without undue effort.

Danisco (Defendant) contends that the asserted claims of Novozymes’ patent are invalid because it fails to meet this requirement. To succeed on this contention, Danisco must prove by clear and convincing evidence that the specification does not enable a person of ordinary skill in the field of the invention to make and use a product covered by the asserted claims, without an unreasonable amount of experimentation. Whether the amount of experimentation is unreasonable depends on the complexity of the field of the invention and the level of expertise and knowledge of persons of ordinary skill in that field.

The following factors have been set forth as relevant to the issue of reasonable experimentation: how much experimentation is necessary; how much direction or guidance the patent provides; whether the patent contains working examples; the simplicity or complexity of the invention; what is disclosed by the prior art; the level of skill possessed by those in the field at the time patent application is first filed; the predictability of the art at the time patent application is first filed; and the breadth of the claims.¹⁵

If Danisco (Defendant) proves this as to a particular claim by clear and convincing evidence, you should find that claim invalid.

Novozymes’ Objections:

Novozymes objects to Danisco’s Proposed Final Instruction L9 because it omits relevant portions of the legal standard governing enablement. First, the Instruction fails to indicate that a patent need not teach, and preferably omits, what is well-known in the art. *Falkner v. Inglis*, 448

¹⁴ See *Sitrick v. Dreamworks, LLC*, 516 F.3d 993, 999 (Fed. Cir. 2008); *Auto. Techs. Int’l, Inc. v. BMW of N. Am., Inc.*, 501 F.3d 1274, 1285 (Fed. Cir. 2007) (“The full scope of the claimed invention must be enabled.”).

¹⁵ Adapted from Committee Note 3 to Fed. Civ. Jury Instructions of the 7th Circuit § 11.3.3.2 (citing *Enzo*, 188 F.3d at 1371; see also, *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988)).

F.3d 1357, 1365 (Fed. Cir. 2006); *Ajinomoto Co. v. Archer-Daniels-Midland Co.*, 228 F.3d 1338, 1345-46 (Fed. Cir. 2000); *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986). Second, the Instruction fails to indicate that even a considerable amount of experimentation is not undue so long as it is routine experimentation. *In re Wands*, 858 F.2d 731, 737-38 (Fed. Cir. 1988).

Further, Novozymes objects to Danisco's modification of the model instruction to add "full scope of the claimed" invention. This phrase, which is not defined, is potentially confusing and adds nothing to the jury's understanding of the law it must apply. The correct standard is set forth in Novozymes' Proposed Instruction No. 4.9.

Novozymes also objects to Danisco's inclusion of the *Wands* factors in the Instruction because they unduly complicate the instruction. The Committee on Pattern Civil Jury Instructions of the Seventh Circuit in fact counsels against including the *Wands* factors in an enablement instruction. Federal Civil Jury Instructions of the Seventh Circuit, Instruction No. 11.3.2.2, Committee Comment 3.

Novozymes further objects to this Instruction because it refers to "the field of the invention" rather than "the art of the invention." Although the Seventh Circuit model instructions use "field" rather than "art," the parties' experts rely on and use the terminology found in patent case law, namely, "the art of the invention."

DANISCO'S PROPOSED FINAL INSTRUCTION D1

Adapted from Fed. Civ. Jury Instructions of the 7th Circuit § 11.4.1

Damages—Generally

If you have found that the asserted claims of the '723 patent are not invalid and¹⁶ that Danisco (Defendant) infringed any valid claim of the '723 patent, you must then consider what amount of damages to award to Novozymes (Plaintiff). Novozymes (Plaintiff) must prove damages by a preponderance of the evidence.

I will now instruct you about the measure of damages. (By instructing you on damages, I am not suggesting which party should win on any issue. If you find infringement, you are to award Novozymes damages adequate to compensate Novozymes for that infringement.) The damages you award are intended to compensate the patent holder, not to punish Danisco (the infringer).

Novozymes' Objections:

Novozymes objects to Danisco's Proposed Final Instruction D1 because it suggests that damages are contingent on the jury's having found the asserted claims of the '723 patent valid and infringed, as if this might be an open question. Because the trial is bifurcated, this Instruction will only be given to the jury if it has already found the '723 patent to be not valid. The Instruction will be given whether or not the jury finds that Danisco's whole broth GC358 alpha-amylase products infringe, as the Court has already found that Danisco's clarified GC358 alpha-amylase products infringe the '723 patent. Dkt. No. 399, Opinion and Order dated July 7, 2011, at 38–39.

Novozymes further objects to the Instruction because it fails to advise the jury at the outset of the second phase of the trial that willfulness must also be decided.

¹⁶ See Committee Comment 1 to Fed. Civ. Jury Instructions of the 7th Circuit § 11.4.1 (noting that “as a general matter, damages must be awarded if there has been a determination of both infringement and validity.”) (emphasis added) (citations omitted).

DANISCO’S PROPOSED FINAL INSTRUCTION D2

Adapted from Fed. Civ. Jury Instructions of the 7th Circuit § 11.4.2

Two Types of Damages — Lost Profits & Reasonable Royalty

There are two types of damages that Novozymes may be entitled to recover: lost profits, or a reasonable royalty. Lost profits consist of any actual reduction in business profits Novozymes suffered as a result of the Danisco’s infringement. A reasonable royalty is defined as the amount the patent owner and someone wanting to use the patented invention would agree upon as a fee for use of the invention. I will describe shortly what Novozymes (Plaintiff) must prove to recover either type of damages.

Novozymes is entitled to recover no less than a reasonable royalty for each infringing sale or manufacture in the United States, even if Plaintiff cannot prove that it suffered lost profits in connection with that sale or manufacture.

Novozymes’ Objections:

Novozymes objects to the first sentence of Danisco’s Proposed Final Instruction D2 because it states incorrectly that Novozymes’ recovery is limited to either lost profits or a reasonable royalty, rather than a combination of both if it proves lost profits for a portion of infringing sales. *Crystal Semiconductor Corp. v. Tritech Microelectronics Int’l, Inc.*, 246 F.3d 1336, 1354 (Fed. Cir. 2001) (“A patentee receives a reasonable royalty for any of the infringer’s sales not included in the lost profit calculation.”).

Novozymes objects that all references to “Plaintiff” should be replaced with references to “Novozymes.”

DANISCO'S PROPOSED FINAL INSTRUCTION D3

Adapted from Model Patent Jury Instructions prepared by The National Jury Instruction Project, June 17, 2009, Section 6.4

Damages—Lost Profits

In this case, Novozymes seeks to recover lost profits resulting from Danisco's infringement. One way Novozymes may establish lost profits is by proving it is more probable than not that:

1. there was demand for the patented product;
2. there were no acceptable noninfringing alternatives, or, if there were, that Novozymes lost some sales as a result of the infringing activity;
3. Novozymes had the manufacturing and marketing capacity to make any infringing sales actually made by Danisco; and
4. the amount of profit Novozymes would have made if Danisco had not infringed.

In this case, Novozymes is also seeking profits from sales of glucoamylase products which it contends it would have sold along with its competing alpha-amylase product. These glucoamylase products are called collateral products. To recover lost profits on sales of such collateral products, Novozymes must prove three things:

1. Novozymes would have sold the collateral products if Danisco had not infringed the patent,
2. the collateral products and the patented product together are like components of a single assembly or parts of a complete machine, or constitute a functional unit, and
3. the amount of the profit Novozymes would have made on sales of glucoamylase.

Lost profits cannot be recovered on unpatented products that were sold along with the patented product merely for reasons of "convenience," "one stop shopping" or "business advantage" as opposed to an "absolute requirement that the two items function together."¹⁷

For those infringing sales where Novozymes does not seek, or does not prove, lost profits damages, the law requires that you award Novozymes a reasonable royalty. I will now instruct you on how to calculate reasonable royalty damages.

¹⁷ *Depuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1333-34 (Fed. Cir. 2009) (quoting *American Seating Co. v. USSC Group*, 514 F.3d 1262, 1269 (Fed.Cir.2008)).

Novozymes' Objections:

Novozymes objects to Danisco's Proposed Final Instruction D3 because it fails to explain to the jury the term "acceptable noninfringing alternative." This is a legal term on which the jury will require instruction. Novozymes has set forth the appropriate instruction in Novozymes' Proposed Instruction No. 5.4.

Novozymes further objects to the Instruction because it fails to instruct the jury that Novozymes is not required to make, use, or sell the invention of the '723 patent in order to recover lost profits. *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1545-49 (Fed. Cir. 1995) (en banc); *King Instruments Corp. v. Perego*, 65 F.3d 941, 947-52 (Fed. Cir. 1995). This is a critical issue on which the jury must be accurately instructed in view of Danisco's repeated attempts to suggest that Novozymes is less entitled to a finding in its favor than it would be if it practiced the claimed invention, a position that is contrary to law.

Novozymes further objects to the Instruction to the extent that it fails to instruct the jury that Novozymes can recover lost profits on sales of glucoamylase products even if Novozymes' alpha-amylase products can be used with other suppliers' glucoamylase products. *See Juicy Whip, Inc. v. Orange Bang, Inc.*, 382 F.3d 1367, 1371-73 (Fed. Cir. 2004). This is also a critical point of contention on which the jury should be accurately instructed.

Novozymes specifically objects to the following statement: "Lost profits cannot be recovered on unpatented products that were sold along with the patented product merely for reasons of 'convenience,' 'one-stop shopping,' or 'business advantage' as opposed to an 'absolute requirement that the two items function together.'" Novozymes objects to this language as argumentative, deliberately one-sided, and inaccurate. It fails to fairly and

correctly state the law concerning recovery of lost profits for collateral sales. Novozymes Instruction No. 5.5 adequately sets forth the law in a form understandable to the jury.

DANISCO'S PROPOSED FINAL INSTRUCTION D4

Adapted from Fed. Civ. Jury Instructions of the 7th Circuit § 11.4.4

Reasonable Royalty

Novozymes (Plaintiff) seeks to recover a reasonable royalty. Novozymes (Plaintiff) is entitled to recover a reasonable royalty for any of Danisco's (Defendant's) infringing sales for which Novozymes (Plaintiff) did not prove lost profits.

A royalty is a payment made to the owner of a patent by someone else so that he can make and sell the patented invention. A "reasonable royalty" is the amount Novozymes (Plaintiff) and Danisco (Defendant) would have agreed upon as a royalty at the time Danisco's (Defendant's) infringement began. In determining a reasonable royalty, you should assume that Novozymes (Plaintiff) would have been willing to allow Danisco (Defendant) to make and sell the patented invention and that Danisco (Defendant) would have been willing to pay Novozymes (Plaintiff) to do so. You should take into account what Novozymes' (Plaintiff's) and Danisco's (Defendant's) expectations would have been if they had negotiated a royalty and had acted reasonably in their negotiations. You should assume that both Novozymes (Plaintiff) and Danisco (Defendant) would have believed that Novozymes (Plaintiff's) patent was valid and infringed. You should also assume that Danisco (Defendant) would have been willing to pay, and Novozymes (Plaintiff) would have been willing to accept, the reasonable royalty they negotiated. Your role is to determine what Novozymes (Plaintiff) and Danisco (Defendant) would have agreed upon if they had negotiated in this manner, not just what either Novozymes (Plaintiff) or Danisco (Defendant) would have preferred.

In determining a reasonable royalty, you may consider the following factors, in addition to any others that are shown by the evidence:

- Royalties that others paid to Novozymes (Plaintiff) for the patented invention;
- Royalties that Danisco (Defendant) paid to others for comparable patents;
- Whether Novozymes (Plaintiff) had a policy of licensing or not licensing the patents;
- Whether Novozymes (Plaintiff) and Danisco (Defendant) are competitors;
- Whether use of the patented invention helps to make sales of other products or services;
- Whether the product made using the patent is commercially successful, as well as its profitability;
- The advantages of using the patented invention over products not covered by the patent;
- The extent of Danisco's (Defendant's) use of the patented invention and the value of that use to Danisco (Defendant);
- Any royalty amounts that are customary for similar or comparable patented inventions;

- The portion of the profit on sales that is due to the patented invention, as opposed to other factors, such as unpatented elements or processes, features, or improvements developed by Danisco (Defendant);
- Expert opinions regarding what would be a reasonable royalty.

Novozymes' Objections:

Novozymes objects to Danisco's Proposed Final Instruction D4 to the extent it fails to indicate that a royalty may be paid to a patentee not only to make and sell the patented invention, but also to use and import the patented invention. 35 U.S.C. § 271.

Novozymes further objects to the Instruction to the extent that it does not specify that a reasonable royalty is the amount Novozymes and Danisco would have agreed upon as a royalty at the time Danisco's infringement began, had they negotiated a license permitting Danisco to practice Novozymes' '723 patent.

Novozymes further objects to the Instruction to the extent it does not list the duration of the patent and the license, as well as the terms and scope of the license, as a factor for the jury to consider in determining a reasonable royalty. *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

DANISCO'S PROPOSED FINAL INSTRUCTION D5

Adapted from Fed. Civ. Jury Instructions of the 7th Circuit § 11.4.7

Totaling the Damage Award

Any amounts that you award for lost profits and for reasonable royalties should be set out separately on the verdict form that I will give you.

Novozymes' Objections:

Novozymes objects to this Instruction as inconsistent with Novozymes' Proposed Verdict Form - 2, and because it suggests that the law requires the amount of lost profits be set out separately from the amount of the reasonable royalty.

DANISCO'S PROPOSED FINAL INSTRUCTION D6

From Model Patent Jury Instructions prepared by The National Jury Instruction Project, June 17, 2009, Section 4.1

Willful Infringement

In this case, Novozymes argues that Danisco willfully infringed the claims of Novozymes's '732 patent.

If you decide that Danisco willfully infringed the claims of Novozymes's patent, then it is my job to decide whether or not to award increased damages to Novozymes. You should not take this factor into account in assessing the damages, if any, to be awarded to Novozymes.

To prove willful infringement, Novozymes must persuade you that it is highly probable that, Danisco acted with reckless disregard of the claims of Novozymes's patent. To show "reckless disregard," Novozymes must satisfy a two-part test: the first concerns Danisco's conduct, the second concerns Danisco's state of mind.

When considering Danisco's conduct, you must decide whether Novozymes has proven it is highly probable that Danisco's conduct was reckless; that is, that Danisco proceeded with the allegedly infringing conduct with knowledge of the '723 patent, and in the face of an unjustifiably high risk that it was infringing the claims of a valid and enforceable patent. Because this is an objective issue, the state of mind of Danisco is not relevant to it. Legitimate or credible defenses to infringement or validity, even if ultimately not successful, demonstrate a lack of recklessness.¹⁸

If you conclude that Novozymes has proven that Danisco's conduct was reckless, then you need to consider the second part of the test. You must determine whether Novozymes proved it is highly probable that the unjustifiably high risk of infringement was known or so obvious that it should have been known to Danisco. In deciding whether Danisco satisfied the state-of-mind part of the test, you should consider all facts surrounding the alleged infringement including, but not limited to, the following:

1. whether Danisco acted in a manner consistent with the standards of commerce for its industry; and
2. whether Danisco intentionally copied without a reasonable basis a product of Novozymes covered by one or more claims of the '723 patent, as distinguished from trying to "design around" the patent by designing a

¹⁸ *Depuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1336-37 (Fed. Cir. 2009); *Black & Decker, Inc. v. Robert Bosch Tool Corp.*, 260 Fed App'x284, 291 (Fed. Cir. 2008); *see also Spine Solutions, Inc. v. Medtronic Sofamor Danek USA, Inc.*, 620 F.3d 1305, 1319 (Fed. Cir. 2010) (reversing denial of JMOL of no willfulness where the accused infringer had raised a "substantial question" as to the patent-in-suit's validity).

product that Danisco believed did not infringe those claims.

Novozymes' Objections:

Novozymes objects to Danisco Proposed Instruction D6 because it is unnecessarily repetitive in stating the standard that must be met – for example, the word “reckless” is used three times. The Instruction is also unnecessarily complicated. The law may be stated much more concisely, as reflected in the model instructions of the Seventh Circuit, on which Novozymes Instruction No. 5.9 is based. Novozymes has set forth the appropriate instruction in Novozymes' Proposed Instruction No. 5.9.

Dated: September 30, 2011

Respectfully submitted,

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